

# ENVIRONMENTAL REPORT

U. S. ARMY SOLDIER SYSTEMS CENTER • NATICK LABS • NATICK, MASSACHUSETTS

## Warehouse Area Cleanup Moves Forward

The Warehouse Area (often referred to as the T-25 Area) underground water pump and treat system has been operating since November 1997, as part of the Treatability Study. As of October 1998, the treatment system has cleaned 22 million gallons of underground water containing dissolved perchlorethylene (PCE) and trichloroethylene (TCE). This volume of water would cover a football field to a depth of 67 feet.

The Warehouse Area is located at the north end of the site installation in front of the T-25 building. Past investigations found dissolved solvents (TCE and PCE) at higher levels than drinking water standards in underground water 30 to 62 feet below ground surface.

The data collected and evaluated continuously for the Treatability Study are grouped into four categories:

- treatment system chemical data,
- treatment system operational data,
- pumping data and
- underground water chemical data.

Current pumping data indicate that the two underground water extraction wells are effectively containing a majority of the

*(Continued on page 2)*



The Open House held on May 14, 1998 attracted over 100 base employees and citizens interested in learning about the Soldier System Center's environmental program. Pictured above is Jerry Keefe, EPA Project Manager, talking to students from Natick High School.

## Environmental Open House a Success

The Open House, held on Thursday, May 14, 1998 at the U.S. Army Soldiers System Center Officers Club was well received — over 100 people from the installation and surrounding communities attended to learn more about the environmental cleanup program and current status of cleanup activities. The Chief of Staff, Deputy Commander and environmental personnel thank everyone for showing interest in the installation's cleanup efforts.

Three sessions were held during the day and evening hours to provide people with the opportunity to talk to environmental personnel involved with the cleanup and view the informational displays and videos about the site at their convenience. Natick High School's environmen-

tal group, Students for the Planet Earth, attended a special early afternoon session from 12:30 to 2:00p.m. designed specifically for local school groups.

Representatives from the Soldier Systems Center environmental office, U.S. Environmental Protection Agency (EPA), Massachusetts Department of Environmental Protection (DEP), Agency for Toxic Substance and Disease Control and the Restoration Advisory Board (RAB) hosted 14 informational stations at the Open House. Each station included posters, maps, videos and technical information about the site cleanup. Several stations in-

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## ...Warehouse Results

(Continued from page 1)



The treatment system for the Warehouse Area has been operating since November 1997. The control panel (pictured on the left) records data 24 hours a day. The air stripper (pictured on the right) is one component used to clean the underground water.

underground water with dissolved PCE and TCE to within the Warehouse Area boundaries. Treatment system chemical data show that the air-stripping and activated carbon absorbers are successfully cleaning the underground water to meet regulatory requirements.

Evaluation of the treatment system operational data have led to minor system changes to improve the way the system filters out naturally-occurring metals. Underground water chemical data have shown significant decreases in dissolved PCE and TCE concentrations at and near the extraction wells. The preliminary results of the Treatability Study are presented in the *Draft Focused Feasibility Study/Treatability Study (FFS/TS) for the T-25 Area*.

As part of the Superfund process, we conducted a Focused Feasibility Study to identify, screen and select potential cleanup alternatives for the contaminated underground water beneath the Warehouse Area. Three alternatives

passed the initial screening. These three alternatives, along with the regulatory-required no action and limited action alternatives, were then evaluated in detail according to nine EPA criteria. Based on the detailed analysis, we are recommending a proposed cleanup method to treat the contaminated underground water. The proposed cleanup option includes extraction and treatment by air stripping with natural attenuation in combination with institutional controls. The Treatability Study described above is currently underway to determine if this proposed alternative effectively contains and cleans the contaminated underground water. A final cleanup plan will be selected in the future with input by and approval from EPA, DEP, and the community. The public is encouraged to comment on the proposed cleanup activities orally or through written correspondence.

Due to these outstanding results from the Treatability Study, we are expecting to release the Proposed Plan for the Warehouse Area this

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spring. Once the Proposed Plan is complete, we will announce its release through advertisements in *The Middlesex News*, *The Natick Bulletin* and *The Natick Tab*. This Proposed Plan will be available for review at the information repositories and we encourage the community to review and provide written or oral comments. We will also hold a public meeting to explain the plan, hear suggestions and answer questions from the community. Then, we will evaluate the comments and recommendations and make any necessary changes to the Plan before it is finalized. ■

**The Proposed Cleanup Action for the Warehouse Area will be available for public comment in the Spring of 1999.**

**Your comments are important to us!**

## ...Open House

(continued from page 1)



John Snowden talks to students from Natick High School's *Students for Planet Earth* about the Remedial Investigation at the Former Proposed Gymnasium Site.

cluded hands-on sampling equipment used in the field during site investigations.

Attendees were encouraged to complete an evaluation form before leaving the Open House. Of the 37 forms completed, all respondents agreed the Open House provided useful and understandable information and that the presenters effectively explained all information. ■

## WANTED: New RAB Members

The current Restoration Advisory Board (RAB) is in its third year of service and is nearing the end of its term. The RAB is a citizen's group comprised of representatives from the town of Natick, Army, EPA, DEP and community volunteers. The group meets seven or eight times a year to discuss the cleanup at the site. RAB members help guide the cleanup activities, set priorities and share community concerns through these meetings. Additionally, RAB members review cleanup plans and documents and communicate the status of the cleanup program to other interested community members.

There are six RAB positions available for the following stakeholder groups:

- Two members from the neighborhoods north and east of the facility

- One member representing local schools
- One installation employee
- One representative from the general business community and
- One member representing the public in general.

We would like to induct the new members in late Spring 1999 so they can spend some time with the retiring members of the RAB.

**An informational RAB meeting will be held in early March so interested candidates can learn more about the RAB and its functions. Interested candidates are encouraged to attend the meeting and submit a membership application.** If you are unable to attend this meeting, please contact John McHugh at (508) 233-5550 to get a membership application. Applications are due back to Soldier Systems Center by

April 2, 1999. An independent review panel will select new members from applications received. New members will be notified in April and will begin working on the environmental program at the Soldier Systems Center immediately. ■

**Find out what being a RAB member is all about!**

**RAB Meeting**

**Thursday,  
March 4, 1999**

**Begins at 7 p.m. and  
is held at the  
Officer's Club**



# Superfund: The Road to Cleanup

## Site Investigation and Discovery

Once identified, a preliminary investigation assesses whether there is a potentially serious risk to human health and/or the environment. The seriousness of the current or potential risks to human health and the environment is ranked according to specific guidelines.

## National Priorities List

If the problems are deemed serious by EPA, the site is put on the NPL. Once an Army facility is placed on the NPL it becomes eligible for Department of Defense funds specifically marked for cleanup.

## Remedial Investigation

This is the point in the Superfund process when the site is characterized in detail. It assesses how serious the contamination is, what kinds of contaminants are present and characterizes potential risks to the community.

## Feasibility Study

An engineering study that evaluates potential cleanup methods.

## Proposed Plan

A proposed plan is issued to summarize site cleanup alternatives and identify the preferred cleanup option.

## Public Comments

Public comments may be given at each major stage of the Superfund process. Each public comment period is held for a minimum of 30 days. Citizens may provide comments either orally at public meetings or through written correspondence.

## Record of Decision

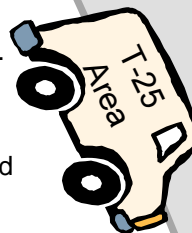
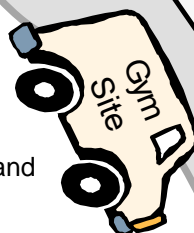
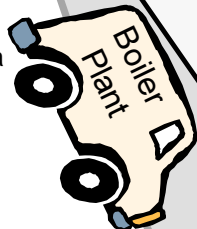
A Record of Decision (ROD) detailing the selected remedy is issued. The ROD includes a summary that addresses comments received during the public comment period.

## Remedial Design

The Remedial Design defines the precise methods and technical specifications for the selected cleanup actions.

## Remedial Action

The Remedial Action is the actual cleanup of the site.



## Ongoing Activities

### Community Meetings

These are scheduled during the investigation and cleanup process to keep residents informed and encourage public involvement.

### Emergency Removal Activities

EPA can conduct emergency removal actions at any time during the investigation and cleanup process.

In May 1994, EPA designated Soldier Systems Center a federal Superfund site and listed it on the National Priorities List (NPL). Once an Army facility is placed on the NPL it becomes eligible for Department of Defense funds marked specifically for the cleanup.

The Superfund program is one of the nation's most ambitious and complex environmental programs. Congress created Superfund in 1980 when it passed the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA arose from a need to protect people from the dangers posed by abandoned or uncontrolled hazardous waste sites.

# Boiler Plant and Building 22 Update

## Background

The Army built the Boiler Plant in the 1950's. The Boiler Plant floor drains and a concrete blow-down tank emptied into a leach field on the southern side of the building. In the mid 1980's the drains were redirected to empty into the sanitary sewer system, but the contaminated soil was not cleaned up.

Through previous investigations and underground storage tank removal and replacement in 1990, we installed five groundwater wells to assess the potential impacts from fuel contamination. In December 1995 during the installation of an oil/water separator, investigators found oil stained soil and began sampling the underground water quarterly. So far compounds have not been detected.

## Current Investigation

In June 1998 we began the environmental investigation of the Boiler Plant and Building 22.

During the investigation we collected data to support a comprehensive Phase II Site Assessment and Investigation for the Boiler Plant fuel release area; identified the nature and distribution of potential contaminants; defined the geologic; and hydrogeologic conditions and assessed site conditions for the potential removal of Building T-23 and the existing water intake structure. The site investigation

commenced at the end of September and the field work ended in December.

The site investigation activities included:

- Conducting geophysical surveys
- Completing 15 direct-push soil field screening points
- Completing 16 small-diameter groundwater field screen points
- Drilling 6 soil borings to collect off-site lab samples and further assess geology
- Installing 7 additional groundwater monitoring wells
- Collecting 2 rounds of groundwater samples from new and existing monitoring wells
- Collecting 7 surface soil samples at Buildings 22 and T-23
- Collecting 6 surface water/sediment sample pairs from the South Pond
- Completing hydraulic conductivity tests on each new well
- Surveying each sampling location

Field investigations were completed in December 1998. Next, we will review the collected data and then complete the second round of underground water sampling in Spring 1999.

## Small PCE Plume Found Near Building 22

The Army used Building 22 as a hazardous materials storage and issuing facility from the 1950s to 1989. Currently the building is used for storage of housing parts, including water heaters, refrigera-

tors, portable welding equipment and absorbent materials used by the Hazardous Materials Response Team.

During the Boiler Plant investigation, we installed microwells near the building and discovered a localized plume of PCE contamination in the groundwater. PCE levels found in the initial sampling ranged from non-detectable to a maximum of 450 parts per billion detected in one sample.

The Army and its contractor, Harding Lawson Associates, installed additional small diameter and plume monitoring wells around Building 22 to define the boundaries. Testing of these wells will resume in Spring 1999 to determine the extent and potential source of the PCE.

Based on field screening results it appears the plume may be very narrow in width. The plume is estimated to be 50 to 100 feet wide and is contained within shallow underground water. Further quarterly sampling and testing will determine how quickly and in what direction the plume is moving. ■

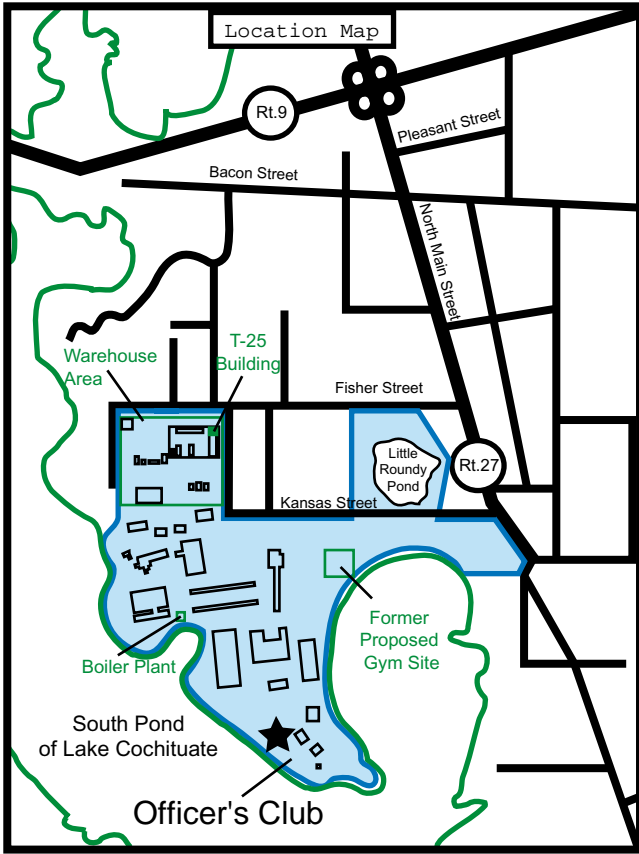
# Study Areas

## Warehouse Area

The Warehouse Area is located at the north end of the site installation. The area in front of the T-25 building is under investigation because dissolved solvents and degreasers (TCE and PCE) have been found at levels higher than drinking water standards in underground water 30 to 62 feet below ground surface. Current data indicate that the movement of this water is very slow and that affected water is being contained close to the Warehouse Area as a result of the Army's pump and treat activities. The Treatability Study has provided data needed to better understand underground water movement (*see page 1 and 2*).

## Former Proposed Gym Site

The Former Proposed Gym Site is located south of the entrance to the site installation. Construction workers noticed a petroleum odor in the soil when preparing to build a new gymnasium. Low concentrations of various chemicals were found in the soil. The source of these chemical concentrations is unclear since the area was previously used as a helicopter pad and is next to a public sewer line that occasionally overflows in the spring. We are currently investigating the nature and extent of contamination at the site. The draft Remedial Investigation Report was released in January 1999.



# Soldier Systems Center Environmental Report

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## Inside This Issue:

Warehouse Area Cleanup Moves Forward .....	1
Environmental Open House .....	1
WANTED: New RAB Members .....	3
Superfund Road To Cleanup .....	4
Boiler Plant and Building 22 .....	5

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**I am interested in serving on the Restoration Advisory Board. Please send me a membership application. *(Please include name and address above).***

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We look forward to hearing from you.